



# Information Therapy: Prescribing Information to Manage Disease

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The Disease Management Colloquium,  
June 29, 2004

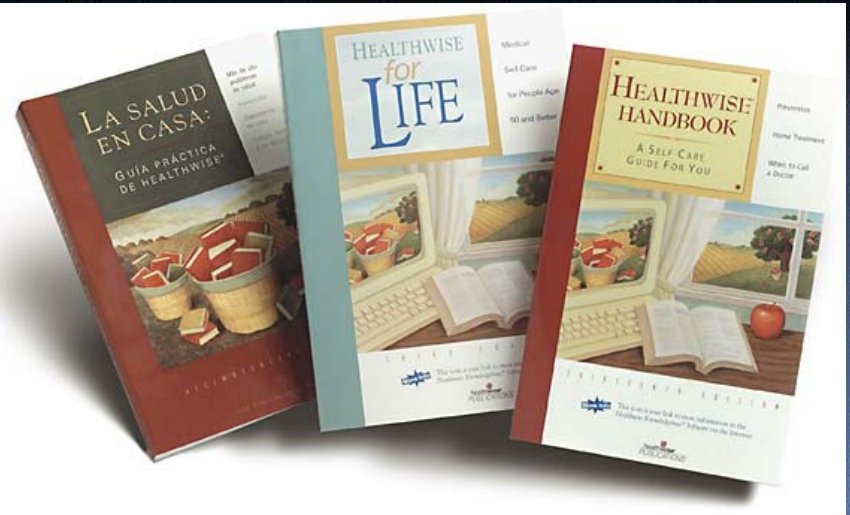
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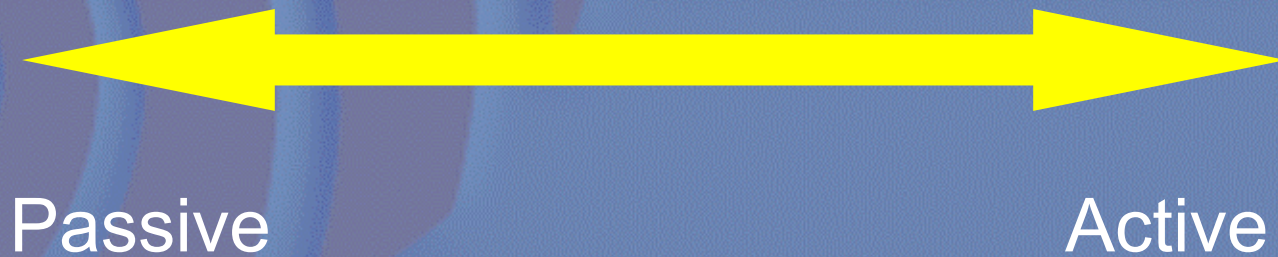
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If you want a smarter system...  
Build a smarter patient



Financial Planning...Consumer Goods...Travel...



# What makes it so hard to help patients get smarter?

- Evidence-based medicine not practiced
- Practice variation
- Poor understanding of options
- Distrust/poor communication
- Few tools
- Few incentives



# The “x” in Medicine

- Rx = Medications
- Sx = Symptoms
- Hx = History
- Dx = Diagnosis
- Tx = Treatment



**Ix = Information Therapy**



# “Information Therapy”

The prescription of specific evidence based medical information

to a specific patient, caregiver, or consumer

at just the right time to help them make a specific health decision or behavior change

as part of the process of care



# “Say Again?”



“...between half  
and four-fifths of  
all medical  
information...  
was forgotten  
instantly by the  
patient.”



## What we say to dogs

Okay, Ginger! I've had it!  
You stay out of the garbage!  
Understand, Ginger? Stay out  
of the garbage, or else!



## What they hear

blah blah GINGER blah  
blah blah blah blah blah  
blah blah GINGER blah  
blah blah blah blah...



Janet



# JAMA Study: Doctors Awful at Involving Patients



Only 9% of decisions  
are rated as  
“informed  
decisions.”

JAMA, Vol.282 No.24,  
December 22/29, 1999



# We Need Improved Communication

- Stone age technology: mouth to ear
- Information prescriptions:
  - Evidence-based
  - Documented
  - Lasting
- Better outcomes, higher satisfaction and less time expended, saved \$\$\$



# Information Therapy

Information. Decisions. Support

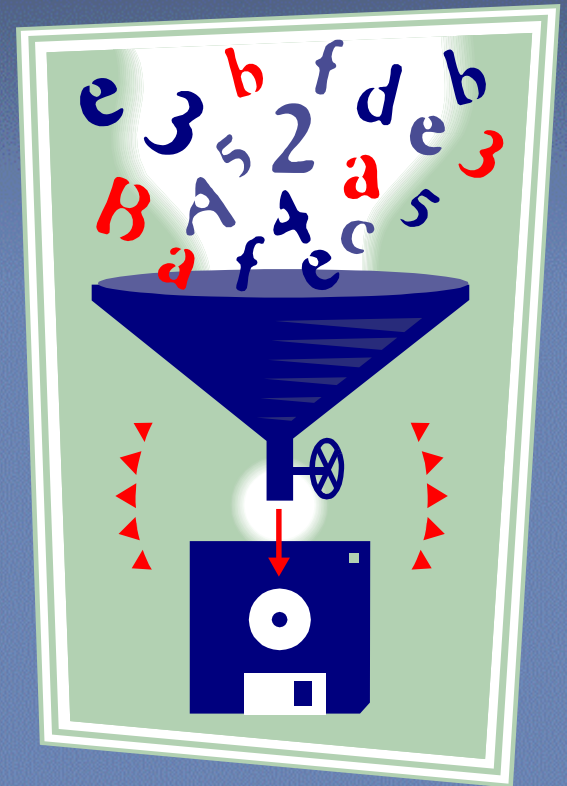


*The right  
information to  
the right person  
at the right time.*



# The Right Information

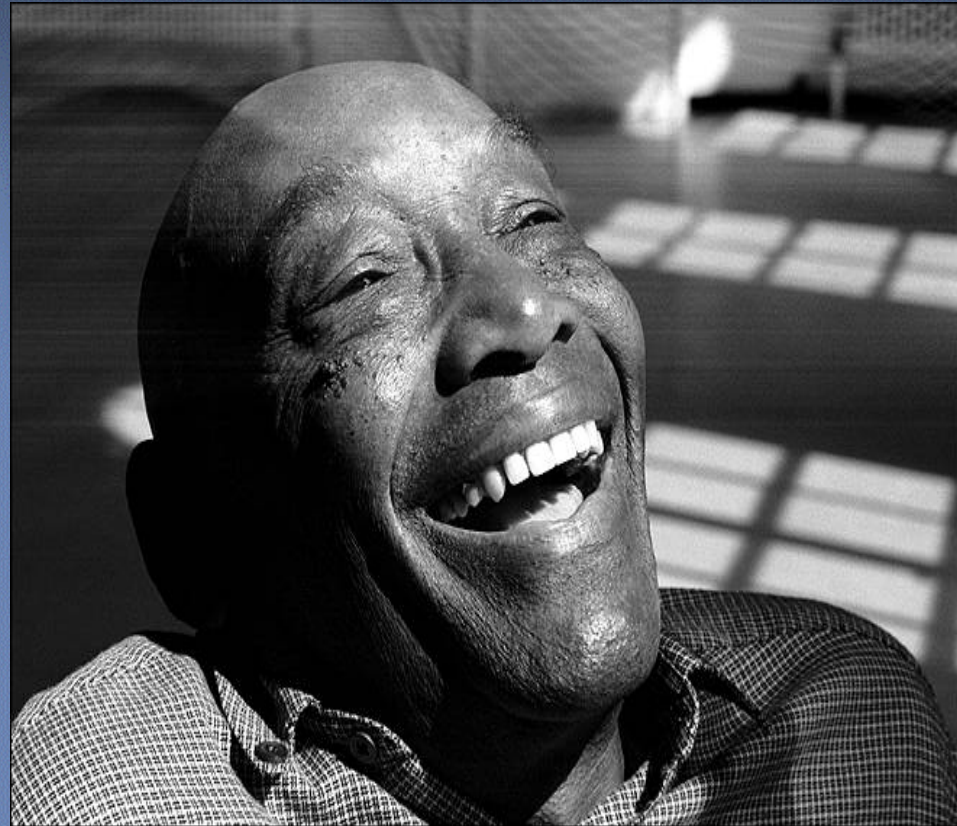
- Evidence-based
- Referenced and up-to-date
- Free from commercial bias
- Reviewed by experts
- Decision-focused
- Consumer friendly





# The Right Person

- The Patient
- The Family
- The Caregiver



Ed Kashi / Special to MSNBC



# The Right Time (Moments in Care)

- Pre-Diagnosis
- Initial Treatment
- Worsening/Complications
- Stable/Optimizing
- End-of-Life Care





# How Ix Works

- Information triggers

- ICD-9, CPT-4, SNOMED

- Moments in care

- Diagnosis, Treatment, Discharge

- Information prescription





# Physician Prescribed: The “Ideal” Application



From EMR... to  
patient portal



Becoming a part of every doctor visit



# Ix in Action



## Group Health Cooperative

- After Visit Summaries
- Medical Test Reports
- Physician e-mail



# 9 Ix Apps in 19 Minutes: Ix all Along the Healthcare Journey

- Prevention

- Disease Self-management

- Shared Decision-making

- Life Events



# #1: Ix for preventive services



- Seasonal
  - Flu shots
  - Allergy Prep.
- Age/sex-specific
  - Colon Cancer Screen
  - Cholesterol Check
  - Immunizations
- Condition-Specific
  - Depression
  - Diabetes



Clinical Area/Specialty:	General Practice
What do you want to discuss with your provider?	<input type="checkbox"/> General Health Concerns <input type="checkbox"/> Unusual Pains / Symptoms <input type="checkbox"/> Prescriptions <input checked="" type="checkbox"/> Routine Checkup Other:
Reason for appointment or primary complaint:	colonoscopy
Send a Reminder	Check method(s) in which you wish to receive reminder <input checked="" type="radio"/> Mail <input checked="" type="radio"/> Phone <input checked="" type="radio"/> E-mail
Attach Document:	<a href="#">Attach Document</a>

Go back to...

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New Search

colonoscopy

GO

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## Should I have a sigmoidoscopy or a colonoscopy to screen for colorectal cancer?

### Introduction

This information will help you understand your choices, whether you share in the decision-making process or rely on your doctor's recommendation.

### Key points in making your decision

Screening tests for [colorectal cancer](#) may detect [colon polyps](#) or cancer. Detecting colon polyps is important because certain types ([adenomatous polyps](#)) are more likely to develop into colorectal cancer. Finding and removing colon polyps reduces your risk of developing colorectal cancer. Consider the following when making your decision:

Reasons to have a sigmoidoscopy	Reasons to have a colonoscopy
<ul style="list-style-type: none"> <li>A sigmoidoscopy requires less preparation than does a colonoscopy. The bowel-cleaning preparation for colonoscopy, especially the strong laxatives taken the day before, can</li> </ul>	<ul style="list-style-type: none"> <li>Colonoscopy is the only screening method that can both detect and remove polyps in the entire colon during the same exam. A normal colonoscopy exam (no polyps are found) may</li> </ul>



# Business Case for Prevention Ix



- Increase Revenue  
Attract/keep patients
- Improve Outcomes




## #2: Ix for Visit Prep

- Scheduling system triggered: reason for visit
  - Home treatment
  - Symptoms/history
  - Meds list?
  - Clothing for exam
  - What to expect
  - 3 main questions



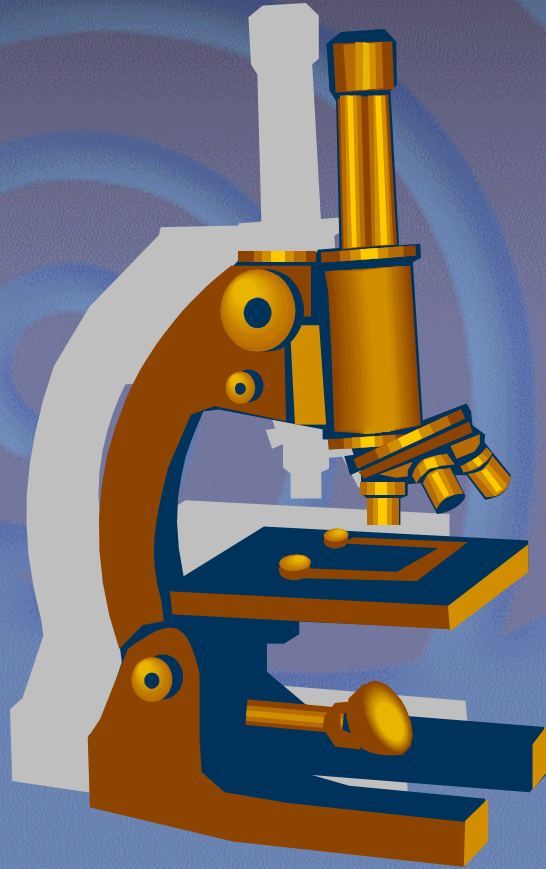


# Business Case for Visit Prep

- 
- Reduces no shows
  - Speeds throughput
  - Increases satisfaction
  - Improves outcomes
  - Avoids revisits/call backs



# #3: Ix with Test Orders



- CPT triggered with test order
  - Meals prep?
  - Clothing prep?
  - What to expect
  - Risks and benefits
  - Decision guide?



# Business Case for Lab Prep



- Reduces no shows
- Reduces re-tests
- Speeds throughput
- Increases satisfaction
- Improves outcomes
- Reduces phone calls



# #4: Ix with Testing Results



- CPT triggered from test report
  - Results
  - Interpretation
  - Links to appropriate disease management
- Automatic or on clinician release



hworg - Taking calcium for osteoporosis - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Reload Print Mail News RSS Options

Address <http://www.healthwise.net/hworg/Content/StdDocument.aspx?DOCHWID=ty6656&SECHWID=ty6674> Go Links >>

Google Search Web PageRank 229 blocked AutoFill Options

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**ACTIONSET** **Taking calcium for osteoporosis**

**WHERE?** **Where to go from here**

Now that you have read this information, you can feel confident that you know how to get enough calcium daily to prevent or treat osteoporosis and reduce your risk for bone loss.

Return to **ACTIONSET** [Taking calcium for osteoporosis](#)

Author: Dana L. Rowett Last Updated 7/30/2002

Medical Review: [Joy Melnikow, MD, MPH - Family Practice](#)  
[Carla J. Herman, MD, MPH - Internal Medicine](#)

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# Business Case for Lab Results Ix



- **Reduces test results phone tag**
- **Reduces call-back questions**
- **Increases satisfaction**
- **Improves outcomes**
- **Reduces malpractice risks**



# #5: Ix with every medication prescription



- Triggered by e-prescription drug code
  - Decision guide
  - Buying guide/generics
  - Taking instructions
  - Contraindications/side effects
  - Adverse reactions
  - Drug-specific patient safety tips



# Ix for Medications

## Medications

Name	Instructions	Provider
<a href="#">AZMACORT AERS 100 MCG/ACT IN</a>	2 Puffs Twice A Day	Pam F. Sutter, MD
<a href="#">LISINOPRIL TABS 10 MG OR</a>	1 PO QD	Pam F. Sutter, MD
<a href="#">ALBUTEROL AERS 90 MCG/ACT IN</a>	2 Puffs 3-5x/d Until No Cough For 2 Days	Pam F. Sutter, MD

[Click to add notes...](#)

A click here

Topic: albuterol

**Pronunciation:** al BYOO teh rall

**Brand:** Proventil, Proventil Repetabs, Ventolin, Volmax

**What is the most important information I should know about albuterol?**

Seek medical attention if you notice that you require more than your usual or more than the maximum amount of any asthma medication in a 24-hour period. An increased need for medication could be an early sign of a serious asthma attack.


**What is albuterol?**

Albuterol works by relaxing muscles in the airways to improve breathing.

Takes you here

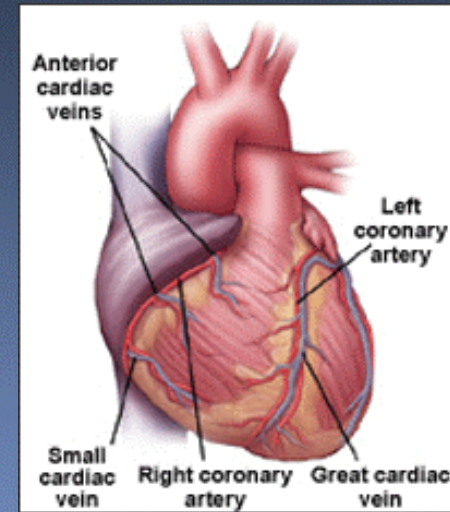
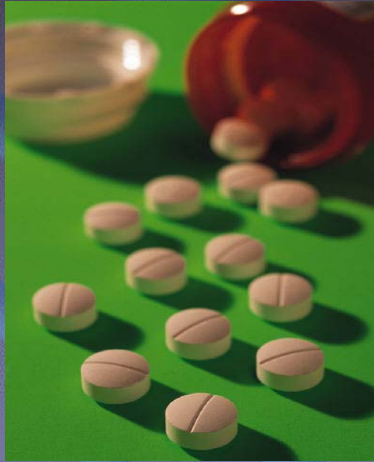


# Business Case for Drug Ix

- 
- Increase satisfaction
  - Speeds throughput
  - Aids adherence
  - Improve Outcomes



# #6: Ix to improve adherence



## Antibiotic Use

- Avoid unneeded use
- Increase adherence once started

## Heart Rx: aspirin, beta blockers, etc

- Reinforce importance
- Provide periodic decision guide



# Business Case for Adherence Ix

- 
- Satisfaction
  - Outcomes
  - Quality measures




# #7: Ix with After Visit Summaries

- Vital signs
- Diagnosis + links
- Tests + links
- Drugs + links
- Home treatment
- When to call





# Business Case for Visit Summaries

- 
- **Attract/keep patients**
  - **Reduce calls in**
  - **Reduce calls out**
  - **Reduce malpractice risks**
  - **Improve Outcomes**



# #8: Ix to disease management

- Triggered by ICD9
  - Referral to disease management classes
  - Web-based self-management groups
  - Recruitment into population-based disease management
  - Automatic or on Clinician release





# Business Case for Disease Management Ix



- Attract/keep patients
- Improve Outcomes
- Improve quality measures



# #9: Ix to Wellness



- Triggered by ICD9 targeted behavior change programs
- Personally tailored based on individual assessments
- Focused on key behaviors to manage disease



# 5-step Ix Infrastructure

- Member portal with secure messaging
- Content: Prescription-strength
- Triggers from real time or near time data
  - Physician in clinic
  - (EMR, CPOE, Scheduling System, etc.)
- E-mail addresses
- Messaging system (rules and blocking)



# Are Patients Ready?

## Consider this:

- Elevators and gas pumps
- Bank deposits/withdrawals
- Airline tickets/hotel reservations
- Stock market buys and sell orders

**A transformation of  
convenience and efficiency**



# What Your Physicians Get



- Saved time
- Increased patient satisfaction
- Malpractice protection
- Better patient compliance and outcomes



# Three Predictions

- Ix with every medical test and Rx prescription
- Ix with every clinic visit
- Ix at every hospital bedside





[www.healthwise.org](http://www.healthwise.org)

[www.informationtherapy.org](http://www.informationtherapy.org)

Many thanks.





## Ix Demo

<http://demo.healthwiserd.net/ixdemo03>